

Appl. No. 09/944,318  
Amendment and/or Response  
Reply to Office action of 18 January 2006

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IN THE UNITED STATES

PATENT AND TRADEMARK OFFICE

Appl. No. : 09/944,318  
Applicant(s) : NAUTA et al.  
Filed : 31 Aug 2001  
TC/A.U. : 2873  
Examiner : STULTZ, Jessica T.  
Atty. Docket : NL-000483  
Title: DISPLAY DEVICE

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On: 1 May 2006

Bv: 

PETITION under 37 C.F.R. § 1.144

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Alexandria, VA 22313-1450

Sir:

In response to the final Office action of 18 January 2006, the applicants hereby petition the Director to review the requirement for restriction of 22 February 2005.

The restriction was traversed in the applicants' response of 22 March 2005, and reconsideration of the restriction was requested in the applicants' response of 8 November 2005.

The following remarks are submitted in support of this petition.

NL-000483 Petition 6.118

Atty. Docket No. NL-000483

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### REMARKS

The Office action of 22 February 2005 states:

- "Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1 through 12 are drawn to a liquid crystal device, classified in class 359, subclass 238.
  - II. Claims 13 through 21 are drawn to method for manufacturing, classified in class 349, subclass 193."

This restriction as written is erroneous per se, because claims 13-21 are not method claims. Claims 1-12 are drawn to a display device that includes an illumination system, and claims 13-21 are drawn to the illumination system.

In addition to objecting to the expressed basis for the restriction, the applicants traverse the election requirement for being substantively improper.

MPEP 803 states:

"If the search and examination of an entire application can be made without serious burden, the examiner *must* examine it on the merits, *even though it includes claims to independent or distinct inventions.*"

The Examiner asserts that "additional searching ... would place an undue burden on the examiner since these claims include more limitations". The applicants respectfully maintain that the criteria for requiring a restriction do not support the Examiner's assertion that an increased number of limitations justifies a restriction. The applicants submit that the Examiner's assertion would support an arbitrary and capricious criteria for restriction based on how many limitations each examiner desires to evaluate at any given time.

In this application, the claims address unique aspects of an illumination system that is particularly well suited for a display device, and a search for either set of claims will cover the same field of prior art. Additionally, each of the "additional" limitations of claims 13-21 are limitations that are included in claims 1-2, and 4-9.

The following comparison of the restricted claims clearly demonstrates the similarities between each set of claims.

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**Claim Group I**

1. A display device comprising:  
a display panel having a first light-transmissive substrate provided with electrodes at the area of pixels arranged in rows and columns, a second light-transmissive substrate, and electro-optical material between the two substrates; and  
an illumination system situated on the side of the second substrate remote from the electro-optical material, said illumination system including an optical waveguide of an optically transparent material having an exit face facing the display panel,  
wherein the optical waveguide is adapted for selectively coupling out light to the display panel for a group of rows of pixels or a group of columns of pixels and for coupling in light in a direction which is substantially parallel to the exit face.

2. The device of claim 1, wherein the illumination system includes at least one backlight and an optical waveguide having at least one entrance face for light, while light from the backlight can be coupled in along the entrance face extending substantially transversely to the exit face, and a selectively switchable light switch is situated between the backlight and the entrance face.

**Claim Group II**

13. An illumination system comprising an optical waveguide of an optically transparent material having an exit face, and means for coupling light on at least one entrance face in a direction parallel to the exit face, wherein the optical waveguide is provided with means for selectively coupling in light for a part of the exit face.

14. The system of claim 13, wherein the illumination system comprises at least one backlight having an entrance face for light at the area of the optical waveguide, while light from the backlight can be coupled in along an entrance face extending substantially transversely to the exit face, and a selectively switchable light switch is situated between the backlight and the entrance face.

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4. The device of claim 2, wherein the selectively switchable light switch includes an electro-optical switching device with an electro-optical material between two substrates, at least one substrate being provided with strip-shaped electrodes.

5. The device of claim 1, wherein the illumination system includes sub-segments and at least one backlight with an entrance face for light for each sub-segment, while light from the backlight can be coupled into the sub-segments.

6. The device of claim 5, wherein the light from the backlight can be coupled in along an entrance face extending at an angle to the exit face, and selectively switchable light switches are situated between the backlight and segments of the optical waveguide.

7. The device of claim 6, wherein at least one of the selectively switchable light switches includes a switchable reflective mirror.

8. The device of claim 1, wherein the optical waveguide includes an electro-optical switching device with an electro-optical material between two substrates, at least one substrate being provided with strip-shaped electrodes on the side of the electro-optical material.

15. The system of claim 14, wherein the selectively switchable light switch comprises an electro-optical switching device with an electro-optical material between two substrates which are provided with strip-shaped electrodes on the side of the electro-optical material.

16. The system of claim 13, wherein the illumination system comprises sub-segments and at least one backlight with an entrance face for light for each sub-segment, while light from the backlight can be coupled into the sub-segments.

17. The system of claim 16, wherein the light from the backlight can be coupled in along an entrance face extending at an angle to the exit face, and selectively switchable light switches are situated between the backlight and segments of the optical waveguide.

18. The system of claim 13, wherein the selectively switchable light switch comprises a switchable reflective mirror.

19. The system of claim 13, wherein the optical waveguide comprises an electro-optical switching device with an electro-optical material between two substrates, at least one substrate being provided with strip-shaped electrodes on the side of the electro-optical material.

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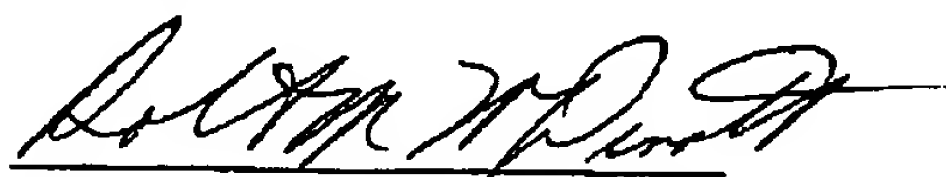
9. The device of claim 1, wherein the illumination system includes at least one backlight having an entrance face for light at the area of the optical waveguide, while light from the backlight can be coupled in along an entrance face extending substantially transversely to the exit face, and parts of the backlight are selectively switchable between an on-state, having a high light intensity, and an off-state.

20. The system of claim 13, wherein the illumination system comprises at least one backlight having an entrance face for light at the area of the optical waveguide, while light from the backlight can be coupled in along an entrance face extending substantially transversely to the exit face, and parts of the backlight are selectively switchable between an on-state, having a high light intensity, and an off-state.

As can be seen, the claims of each restricted set are similar, and the applicants respectfully maintain that there is no significant burden imposed in the examination of all of these claims without restriction. The applicants further maintain that, in view of the similarities between these sets of claims, it would be highly inefficient for both the Office and the applicants to prosecute these claims as separate applications.

In view of the foregoing, the applicants respectfully request that the Examiner's requirement for restriction be withdrawn. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Director is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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